

CLAIMS

1. An electrical switch for connecting and breaking a circuit, including:
 a connecting and breaking mechanism for connecting and breaking the
 circuit provided with at least a set of movable contacts and stationary contacts;
 5 a electromagnetism drive mechanism for controlling the contacts to be
 actuated so as to realize closed circuit;
 a housing for accommodating the movable contact and stationary contact;
 an arc-extinguishing mechanism disposed in the housing and corresponded
 to the movable and stationary contact;
 10 a case connected to a base for accommodating the electromagnetism drive
 mechanism;

a bedplate associated with the case; and
 a holding mechanism disposed on the bedplate for holding the contacts to
 connect the circuit after the contacts are connected, the holding mechanism is
 15 electromagnetic and has a set of electromagnetic attracting mechanism in which
 the movable iron core is made to be a pothook or a baffle mechanism, the movable
 iron core is attracted to make the contact mechanism hold the circuit connected
 when the electromagnetic attracting mechanism is powered on.

2. The electrical switch set forth claim 1, wherein:
 20 the pothook or baffle of said holding mechanism keeps the switch closed by
 means of hitching or ramming the movable bolt, said holding mechanism further
 includes a coil, a conducting magnet plate, a bracket, and a tension spring; said
 pothook intersects the top end of the conducting magnet plate, and has an inclined
 plane at its hook so as to disconnect the movable bolt.

3. The electrical switch set forth claim 1, wherein:
 25 said holding mechanism is an elasticity type, the pothook or baffle of said
 holding mechanism keeps the switch closed by means of elasticity, said holding
 mechanism further includes a spring, a stop button, and a reset button, said
 pothook or baffle abuts against the movable bolt.

4. The electrical switch set forth any one of claims 1-3, further includes a
 30 current limiting mechanism disposed on the bedplate for detecting and limiting
 over-current, said over-current mechanism includes a set of electromagnet
 corresponding to each of phase circuit and a set of connecting rod mechanism
 connected with thereof, said connecting rod mechanism has a rod which can
 35 rapidly thrust aside the movable iron core of the holding mechanism when the
 over-current occurs, and further includes a spring, a pushing plate, a pushing bar
 and a bracket.

5. The electrical switch set forth any one of claims 1-4, further includes a
 selection switch mechanism disposed on the bedplate, said selection switch
 40 mechanism comprises a set of movable and stationary slide slices, in which the
 movable slide slice moves along with the turnbutton bar, said selection switch may
 move both in the rotary direction and in the vertical direction to control the
 operating state of said switch.

6. The electrical switch set forth any one of claims 1-5, further includes a
 45 comprehensive protector, said comprehensive protector has a thermal element
 action means corresponding to each phase circuit, the thermal element action
 means can disconnect said switch when the over-current occurs, said
 comprehensive protector further has a phase failure mechanism corresponding to
 the main circuit which can disconnect said switch in detecting the phase failure.